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EXAMINER

SMITH, PETER J

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,302

Applicant(s)

LAUGHLIN, JOHN DAVID

Examiner

Peter J Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: amendment filed 3/7/2005.
2. Claims 1-21 are pending in the case. Claims 1, 9, and 15 are independent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Naik et al. (hereinafter “Naik”), US 5,579,446 patented 11/26/1996.

Regarding independent claim 1, Naik discloses an interface configured to receive print job data in fig. 1. Naik discloses a print job formatting routine which notes one or more regions within a print job derived from the print job data and further specifies a particular print quality level at which each such region is then printed in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, and col. 6 line 61 – col. 7 line 16.

Regarding dependent claim 2, Naik discloses a WYSIWYG display routine for generating a WYSIWYG display of the print job in fig. 2A and a user input routine for receiving user input defining the one or more regions within the print job using the WYSIWYG display in fig. 2A and col. 10 lines 44-57.

Regarding dependent claim 3, Naik discloses an input routine configured to receive user input specifying a particular print quality level for each of the one or more regions defined

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within the print job in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16, and col. 10 lines 44-57.

Regarding dependent claim 4, Naik discloses receiving user input through a mouse connected to a host computer on which the printer driver is running in fig. 1.

Regarding dependent claim 5, Naik discloses wherein the user input routine is configured to display movement of a cursor on the WYSIWYG display in response to physical movement of the mouse, the movement of the cursor being used by the user input routine to define the one or more regions within the print job in fig. 2A.

Regarding dependent claim 6, Naik discloses a graphics identification routine for identifying regions of the print job that contain a graphic element in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16, and col. 10 lines 44-57.

Regarding dependent claim 7, Naik discloses an embodiment wherein the print job formatting routine is configured to automatically specify a print quality setting for identified regions of the print job that contain a graphic element in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, and col. 6 line 61 – col. 7 line 16.

Regarding dependent claim 8, Naik discloses a user routine through which a user can specify a default print quality setting to be applied to the identified regions of the print job that contain a graphic element in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16.

Regarding independent claim 9, Naik discloses printing designated regions within a print job at different print quality levels fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16, and col. 10 lines 44-57.

Regarding dependent claim 10, Naik discloses wherein the designated regions are within a single page of the print job in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16, and col. 10 lines 44-57.

Regarding dependent claim 11, Naik discloses displaying a WYSIWYG display of the print job in fig. 2A and receiving user input defining one or more of the regions within the print job using the WYSIWYG display in fig. 2A and col. 10 lines 44-57.

Regarding dependent claim 12, Naik discloses specifying one or more regions within the print job by moving a cursor driven by a mouse over the WYSIWYG display in fig. 2A.

Regarding dependent claim 13, Naik discloses automatically identifying regions of the print job that contain a graphic element in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16, and col. 10 lines 44-57.

Regarding dependent claim 14, Naik discloses automatically specifying a print quality level for the identified regions of the print job that contain a graphic element in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, and col. 6 line 61 – col. 7 line 16.

Regarding independent claim 15, Naik discloses a host computer and an interface on the host computer for connecting a printing device to the host computer in fig. 1. Naik discloses a printer driver stored on the host computer for formatting print job data from the host computer to a printing device in fig. 1. Naik discloses wherein the printer driver comprises a print job formatting routine which notes one or more regions within a print job derived from print job data and further specifies a particular print quality level at which each such region is to be printed in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16, and col. 10 lines 44-57.

Regarding dependent claim 16, Naik discloses a printing device connected to the host computer through the interface in fig. 1. Naik discloses wherein the printing device prints different regions of a print job in accordance with instructions from the print job formatting routine in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16, and col. 10 lines 44-57.

Regarding dependent claim 17, Naik discloses wherein the regions printed at different print quality levels are on a single page of the print job in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16, and col. 10 lines 44-57.

Regarding dependent claim 18, Naik discloses a WYSIWYG display routine for generating a WYSIWYG display of a print job in fig. 2A and a user input routine for receiving user input defining the one or more regions within a print job using the WYSIWYG display in fig. 2A and col. 10 lines 44-57.

Regarding dependent claim 19, Naik discloses wherein the user input routine is configured to receive user input specifying a particular print quality level for each of the one or more regions defined within the print job in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16, and col. 10 lines 44-57.

Regarding dependent claim 20, Naik discloses wherein the printer driver further comprises a graphics identification routine for identifying regions of the print job that contain a graphic element in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, col. 6 line 61 – col. 7 line 16, and col. 10 lines 44-57.

Regarding dependent claim 21, Naik discloses wherein the print job formatting routine automatically specifies a print quality setting for the identified regions of the print job that

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contain a graphic element in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, and col. 6 line 61 – col. 7 line 16.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naik et al. (hereinafter “Naik”), US 5,579,446 patented 11/26/1996 in view of Nicoloff, Jr. et al. (hereinafter “Nicoloff”), US 6,017,113 patented 1/25/2000.**

Regarding dependent claim 22, Naik teaches defining variable print quality for a plurality of regions in a document in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, and col. 6 line 61 – col. 7 line 16. Naik does not teach that the print quality level is defined by pixels per unit distance. Nicoloff does teach a printer capable of mixed print quality wherein print quality is defined by pixels per distance in col. 2 line 41 – col. 3 line 26. It would have been obvious to one of ordinary skill to have combined the teachings of Naik and Nicoloff to have created the claimed invention. It would have been obvious and desirable to have printed different regions at different resolutions because the different types of regions, such as monochrome versus color portions, in a document have different resolution requirements as taught by Nicoloff in col. 3 lines 17-26.

Regarding dependent claim 23, Naik teaches defining variable print quality for a plurality of regions in a document in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, and col. 6 line 61 – col. 7 line 16. Naik does not teach that the print quality level is defined by pixels per unit distance. Nicoloff does teach a printer capable of mixed print quality wherein print quality is defined by pixels per distance in col. 2 line 41 – col. 3 line 26. It would have been obvious to one of ordinary skill to have combined the teachings of Naik and Nicoloff to have created the claimed invention. It would have been obvious and desirable to have printed different regions at different resolutions because the different types of regions, such as monochrome versus color portions, in a document have different resolution requirements as taught by Nicoloff in col. 3 lines 17-26.

Regarding dependent claim 24, Naik teaches defining variable print quality for a plurality of regions in a document in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, and col. 6 line 61 – col. 7 line 16. Naik does not teach that the print quality level is defined by pixels per unit distance. Nicoloff does teach a printer capable of mixed print quality wherein print quality is defined by pixels per distance in col. 2 line 41 – col. 3 line 26. It would have been obvious to one of ordinary skill to have combined the teachings of Naik and Nicoloff to have created the claimed invention. It would have been obvious and desirable to have printed different regions at different resolutions because the different types of regions, such as monochrome versus color portions, in a document have different resolution requirements as taught by Nicoloff in col. 3 lines 17-26.

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5. **Claims 25-27 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naik et al. (hereinafter "Naik"), US 5,579,446 patented 11/26/1996 in view of Kamasak et al. (hereinafter "Kamasak"), "Dynamic Print Mode Control for Inkjet Printing", *International Conference on Digital Printing Technologies*, Sept. 30 – Oct. 5, 2001, pages 1-22.**

Regarding independent claim 25, Naik teaches a user interface with which a user designates one or more specific regions in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, and col. 6 line 61 – col. 7 line 16. Kamasak teaches an interface configured to receive print job data in page 5. Kamasak teaches defining and segmenting one or more specific regions of a print job in page 5. Kamasak teaches a print job formatting routine which notes the one or more regions within the print job and further specifies a particular print quality level at which each such region is then printed in page 5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Naik and Kamasak to have created the claimed invention. It would have been obvious to have used the dynamic print mode system of Kamasak to have dynamically assigned different print modes to arbitrary regions of the document as specified by the user.

Regarding dependent claim 26, Naik teaches that the user interface comprises a WYSIWYG display of the print job in fig. 3. The user can manipulate the text, graphics, and photo image regions of the document using the WYSIWYG display.

Regarding dependent claim 27, Naik teaches wherein the user interface comprises a mouse moving a cursor on a display of the print job, wherein clicking and dragging the cursor on

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the display designates the region of the print job in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, and col. 6 line 61 – col. 7 line 16. The user can manipulate the text, graphics, and photo image regions of the document using the mouse cursor.

Regarding dependent claim 29, Naik teaches wherein the print job formatting routine prompts a user to input a print quality level setting for at least one of the regions in fig. 2 and 5.

Regarding dependent claim 30, Naik teaches wherein the print job formatting routine prompts a user to input a print quality level setting for at least one of the regions in fig. 2 and 5.

Regarding dependent claim 31, Naik teaches wherein the print job formatting routine prompts a user to input a print quality level setting for at least one of the regions in fig. 2 and 5.

6. **Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naik et al. (hereinafter “Naik”), US 5,579,446 patented 11/26/1996 in view of Kamasak et al. (hereinafter “Kamasak”), “Dynamic Print Mode Control for Inkjet Printing”, *International Conference on Digital Printing Technologies*, Sept. 30 – Oct. 5, 2001, pages 1-22 as applied to claim 25 above, and further in view of Nicoloff, Jr. et al. (hereinafter “Nicoloff”), US 6,017,113 patented 1/25/2000.**

Regarding dependent claim 28, Naik teaches defining variable print quality for a plurality of regions in a document in fig. 2-3, 5, 7, col. 5 lines 23-33, col. 5 lines 58-65, and col. 6 line 61 – col. 7 line 16. Naik does not teach that the print quality level is defined by pixels per unit distance. Nicoloff does teach a printer capable of mixed print quality wherein print quality is defined by pixels per distance in col. 2 line 41 – col. 3 line 26. It would have been obvious to one of ordinary skill to have combined the teachings of Naik, Kamasak, and Nicoloff to have

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created the claimed invention. It would have been obvious and desirable to have printed different regions at different resolutions because the different types of regions, such as monochrome versus color portions, in a document have different resolution requirements as taught by Nicoloff in col. 3 lines 17-26.

Response to Arguments

7. Applicant's arguments filed 3/7/2005 have been fully considered but they are not persuasive. Regarding Applicant's argument in pages 8 and 9 that Naik does not disclose all the limitations under the broadest reasonable interpretations of claim 1, the Examiner respectfully disagrees. Naik shows in fig. 2 and 3 that a user may define text, graphics, and photo regions of a document. Naik then shows in fig. 2 and 5 that the user may then individually adjust the print quality settings individually for each of these regions. Thus, Naik does disclose one or more regions within a print job and setting a particular print quality level at which each such region is then printed.

Regarding Applicant's argument in pages 9 and 10 that Naik does not disclose all of the limitations under the broadest reasonable interpretations of claim 9, the Examiner respectfully disagrees. Naik shows in fig. 2 and 3 that a user may define text, graphics, and photo regions of a document. Naik then shows in fig. 2 and 5 that the user may then individually adjust the print quality settings individually for each of these regions. Thus, Naik does disclose printing designated regions within a print job at different print quality levels.

Regarding Applicant's argument in page 10 that Naik does not disclose all the limitations under the broadest reasonable interpretations of claim 15, the Examiner respectfully disagrees.

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Naik shows in fig. 2 and 3 that a user may define text, graphics, and photo regions of a document. Naik then shows in fig. 2 and 5 that the user may then individually adjust the print quality settings individually for each of these regions. Thus, Naik does disclose a print driver which notes one or more regions within a print job derived from print job data and further specifies a particular print quality level at which each such region is to be printed.

Regarding Applicant's argument in pages 10 and 11 that Naik does not disclose all the limitations under the broadest reasonable interpretations of claim 5, the Examiner respectfully disagrees. Naik discloses that a user may use a mouse cursor to input text, graphics, and photo regions in fig. 2 and 3. Naik then shows in fig. 2 and 5 that the user may then individually adjust the print quality settings individually for each of these regions. Thus, Naik does disclose that a user defines a region within a print job to which a particular print quality level is assigned.

Regarding Applicant's argument in page 11 that Naik does not disclose all the limitations under the broadest reasonable interpretations of claim 12, the Examiner respectfully disagrees. Naik discloses that a user may use a mouse cursor to input text, graphics, and photo regions in fig. 2 and 3. Naik then shows in fig. 2 and 5 that the user may then individually adjust the print quality settings individually for each of these regions. Thus, Naik does disclose moving a cursor over a display with a mouse to identify a print-quality region.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Smith whose telephone number is 571-272-4101. The examiner can normally be reached on Mondays-Fridays 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PJS
4/26/2005


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER